

City of Tempe's Renewable Energy Program



April 12, 2016

Renewable Energy

Citywide goal: 20% renewable energy by 2025



924 kW System at South Water Treatment Plant



Solar City SSA at South Water Treatment Plant

- Completed in March 2014
- 924 kW system
- Utility incentives
- Year 1 production 1,647,700 kWh
- Provides 15% annual energy needs
- \$25,536 savings in the first year

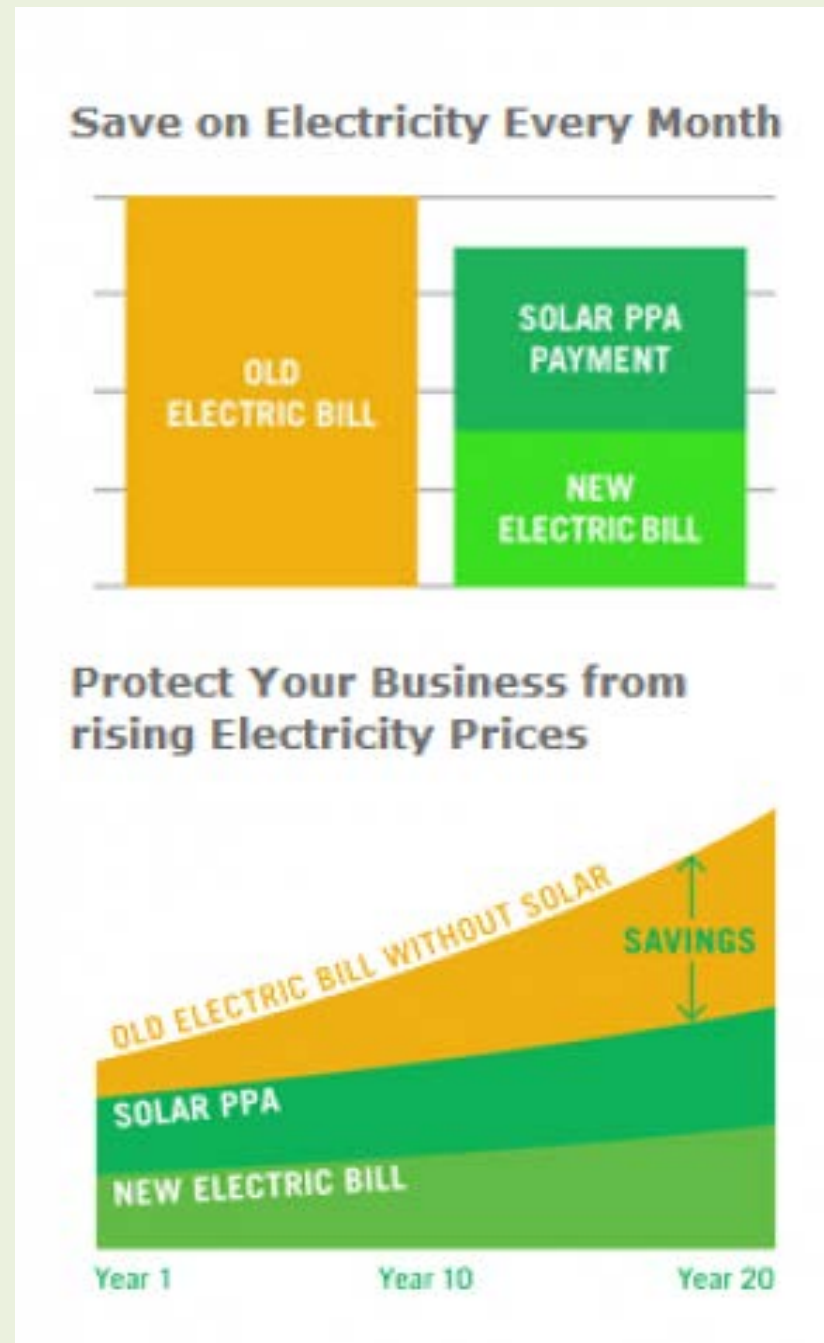


265 kW System at Police/Courts Complex

- Completed in April 2015
- 12% building's power needs
- Utility incentives
- \$150K savings over 20 years



Solar Services Agreement (SSA)



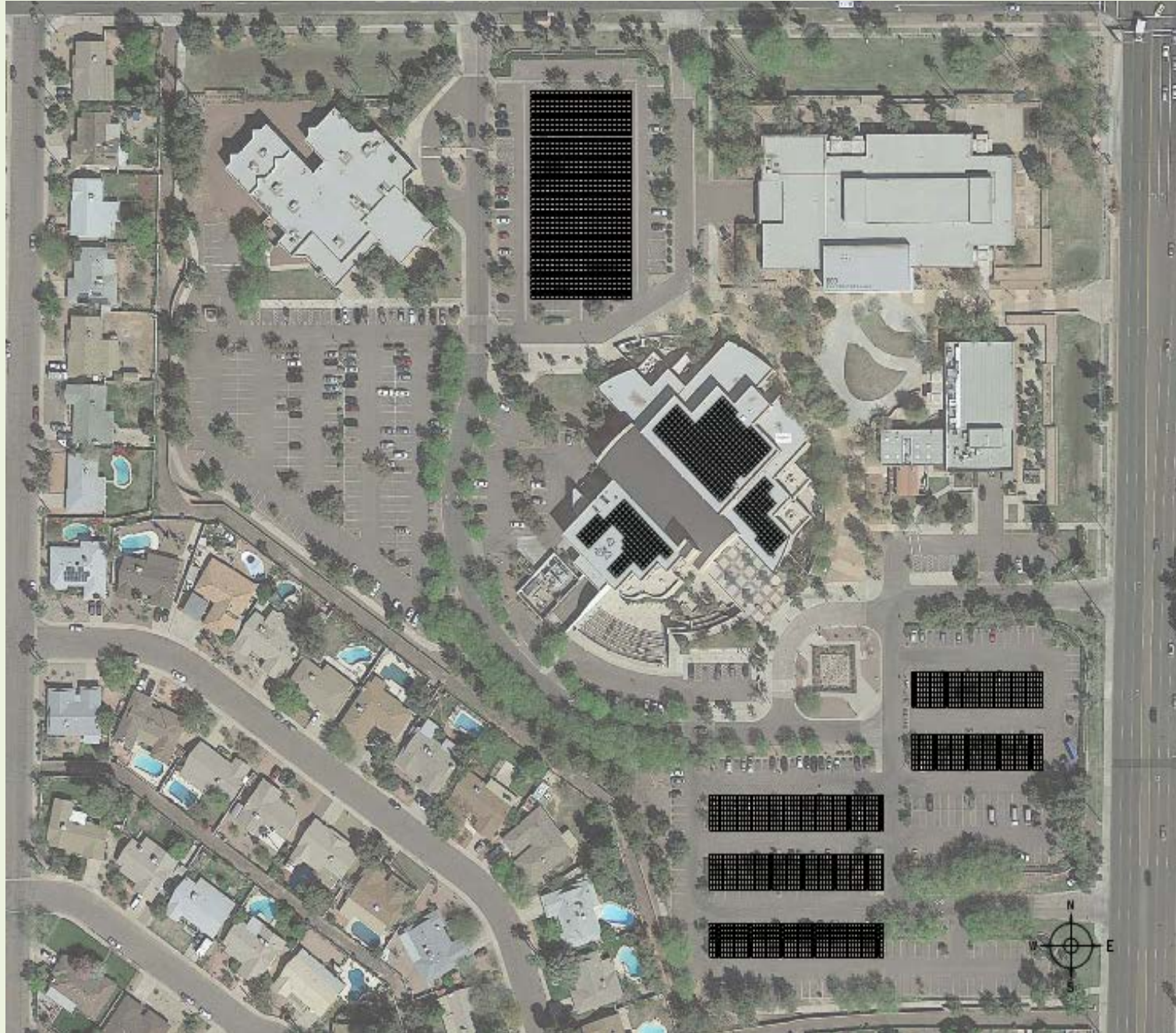
- Third party model
- Solar vendor installs operates & maintains
- Financial partner is owner
- City purchases power from system for 20 years
- Little or no out-of-pocket costs

Local Government Process

- Issue RFP
- Utility consultant
- Legal review of SSA
- Council approval
- Building & Planning permits
- Internal coordination
- Utility coordination
- Weekly construction meetings
- Shutdown & inter-connection



800 kW System at the Tempe Public Library



Solar project highlights:

- 35% of buildings' power needs
- 262 shaded parking spaces
- Construction completed in February 2016
- Increased city's energy use powered by renewable energy up to 5% toward goal

800 kW System at the Tempe Public Library



Next Solar Projects



**950 kW system - Johnny G Martinez Water Treatment Plant
– 25% of power needs**



372 kW Kiwanis Recreation Center – Shade canopies



960 kW East Valley Bus & Operations Maintenance Facility

950 kW System at the South Water Plant



Target Milestones

FISCAL YEAR	SITE	SYSTEM SIZE KW	STATUS	CUMULATIVE MW
FY 2011	Tempe Beach Park Ramada	10	Complete	.010
FY 2013	EVBOM Guard House	12	Complete	.022
FY 2014	South Water Treatment Plant	924	Complete	.946
FY 2015	Police Courts Garage & Building	263	Complete	1.209
FY2016	Library Complex	800	Complete	2.009 (5% GOAL)
FY2016	Kiwanis Recreation Center	400	Construction 2016	2.409
FY 2017	Johnny G Martinez WTP	950	Construction 2016	3.359
FY 2017	EVBOM Carports	900	Construction 2016	4.259 (11% GOAL)
FY 2018	South Water Treatment Plant – Phase 2	1000	Conceptual Plan	5.259
FY 2019	Tempe Center for the Arts	500	Conceptual Plan	5.759
FY 2019	City Hall Parking Structure	100	Conceptual Plan	5.859 (15% GOAL)
FY 2020	525 Office building	100	Conceptual Plan	5.959
FY 2021	Johnny G Martinez WTP – Phase 2	800	Conceptual Plan	6.759
FY 2022	Westside Multi-Gen & Hardy Yard	500	Conceptual Plan	7.259
FY 2023	Escalante Multi-Gen Center	500	Conceptual Plan	7.759 (20% GOAL)

Going Forward

- Federal investment tax credit 30%
- ASU Solar Partnership
- Explore Community Solar
- Battery storage

www.tempe.gov/energy

www.tempe.gov/solar

The screenshot displays the City of Tempe website. At the top, there is a navigation bar with links for Calendar, News, E-Notification, Email Us, and a phone number (480-350-4311). A search bar is also present. Below this is a large banner image of the City of Tempe skyline at night, with the City of Tempe logo and 'City of TEMPE az' text. A secondary navigation bar includes links for Tempe FORUM, RESIDENTS, VISITORS, BUSINESSES, City HALL (selected), Tempe 311, and My TEMPE. A 'GET INVOLVED!' button is also visible. On the left side, a sidebar menu shows 'Public Works' and 'Energy Conservation' (selected). The main content area is titled 'energy conservation' and includes a breadcrumb trail: City Hall » City Departments » Public Works » Energy Conservation. Below the title, there are links for Font Size, Share & Bookmark, Print, and Feedback. The text describes the City's energy conservation goals and lists 'Energy Efficiency and Renewable Energy Programs'. A large image of a bright sun is shown on the right side of the page.

Calendar News E-Notification Email Us 480-350-4311 Search... SEARCH

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energy conservation

Font Size: - + + Share & Bookmark Print [+ Feedback

The City's energy conservation goals are to reduce energy consumption, increase energy efficiency and ultimately reduce utility costs, greenhouse gas emissions and the carbon footprint of our community.

Energy Efficiency and Renewable Energy Programs

The City of Tempe is committed to conserving energy. Our energy efficiency programs include 600,000 square feet of municipal building retrofits, retrofits for nearly 20% of the city's streetlights, energy efficient water treatment, hybrid-electric vehicles in the city's fleet and the recent adoption of the 2009 International Energy & Conservation Code. The City encourages renewable energy generation in residential, commercial and government buildings and has partnered with the Department of Energy,